

DOCUMENT RESUME

ED 174 867

CG 013 655

AUTHOR Hanusa, Barbara Hartman; Weiss, Pamela Freeman
TITLE Importance of Perceived Competence and Perceived Control in Adaptation to College.
INSTITUTION Carnegie-Mellon Univ., Pittsburgh, Pa.
SPONS AGENCY Falk Foundation, New York, N.Y.; National Inst. on Aging (DHEW/PHS), Bethesda, Md.
PUB DATE [77]
GRANT AG00525
NOTE 16p.; Paper presented at the Annual Meeting of the Eastern Psychological Association (49th, Washington, D.C., March 29-April 1, 1978)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Adjustment (to Environment); Adjustment Problems; Assertiveness; Behavior Change; Behavior Patterns; *College Students; *Grade Point Average; Higher Education; *Interpersonal Competence; Intervention; Perception; Self Control; *Skill Development; *Student Adjustment

ABSTRACT

Adaptation to college by first year university students (N=71), who were exposed to orientation programs which varied the amount of perceived competence and perceived control felt by the student in interpersonal problem situations, was investigated. Skills taught in the four treatment conditions were the basics of assertive behavior, self-confidence development, and relaxation training. Adjustment of the treatment and baseline comparison subjects was monitored with questionnaires, interviews with a trained clinician, and grade point averages. Subjects' evaluation of the skills taught indicated that only those who received both the competence and control enhancing interventions found more places to use the skills and felt more confident about using the skills. Independent assessments of social adjustment made 10-12 weeks after the sessions and improvements in grade point average also showed the superiority of the competence enhanced-control group. The other treatment groups fared no better than the baseline comparison groups. (Author)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED174867

Paper presented at EPA,
Washington, D.C.,
April, 1978.

Importance of perceived competence and perceived
control in adaptation to college

Barbara Hartman Hanusa¹ and Pamela Freeman²
Carnegie-Mellon University

1. Barbara H. Hanusa is now at Western Psychiatric Institute and Clinic, University of Pittsburgh, Pittsburgh, PA 15261.
2. Now Pamela Weiss.

This research was in part supported by grants from the Falk Foundation and the Student Affairs Committee at Carnegie-Mellon University. Support for the first author was furnished by National Institute on Aging Grant AG00525 to Richard Schulz.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Barbara H. Hanusa

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) AND
USERS OF THE ERIC SYSTEM."

CG013655

The study I'm going to talk about today is one of two studies where I looked at perceptions of competence and perceptions of control as determinants of successful coping in stressful situations. In this study, a sample of volunteer first-year students was exposed to orientation programs that differed in the amount of competence and control over their collegiate lives implied.

Few would argue that perceptions of competence, that is, feeling able to deal with a situation, are important in determining how a person copes. It seems evident that if you feel able to deal with a situation you are going to be more likely to try. As reasonable as this may seem, problems arise when one tries to operationalize this hypothesis. One problem is that people with high estimates of their competence may indeed be more competent; thus, confounding the perception with the real skill level. So, before one begins to talk about the perception of competence being important, some effort must be made to hold constant the absolute level of competence or skills known.

The other dimension being investigated was the perception of control, that is, feeling that your effort or behavior determines the outcome you receive. In other words, you are responsible for what happens to you. Again, it seems evident that this perception is important in determining how hard a person is willing to try to deal with a situation, how much effort he/she is willing to expend to make things work.

Both the perception of competence and perception of control have been widely investigated in laboratory settings. Typical experiments investigate perceptions of competence by giving a group of random subjects information that they are high in some ability--musical, creativity, etc. Another group is given no information about ability, information that they are average, or, in some cases, information that they are not very good.

Performance on subsequent similar and dissimilar tasks, in the face of frustration, is measured. Most of these studies indicate that high estimates of ability lead to better performance and more persistence in the new situations. It is clear from the research that expecting to succeed is as important or perhaps more important than being capable of success in determining outcomes of situations.

However, in more applied work on self-confidence, level of ability was more important in determining future outcome than variables like self-esteem were. For example, in one longitudinal study academic ability in high school and college was a much better predictor of occupational success than the self-esteem measured in both high school and college (Bachman & O'Malley, 1977).

The importance of the perceptions of control have also been investigated in the laboratory. There is much evidence from work by Glass and Singer (1972) that the perception of control over aversive noise or shock increases subjects' performance and persistence on subsequent tasks. Another perspective on perception of control comes from Seligman's (1975) learned helplessness work. Seligman has shown that lack of control--as operationalized by non-contingency between a subject's response and the outcome received--leads to performances or persistence decrements in subsequent situations.

Field research also indicates that the perception of control is important. Langer and Rodin's (1978) study with residents in a home for the aged is one example of such work. Langer and Rodin compared two groups of residents who had been given different messages about the amount of responsibility each had for their lives at the home. One group received a message that emphasized residents' responsibility for their lives, that they had managed to make decisions before, and they still should be making them. This group was told that they might ask others for help, but they

were responsible for getting it. The comparison groups received a message that de-emphasized any kind of control. They were told that the nursing home would see to their needs, that they should feel at home here, and that the staff was here to make things easier for them.

About 3-4 weeks after the messages were delivered the control/responsibility enhanced group was happier and more active and rated by the nurses as having improved significantly. Eighteen months afterwards this group continued to be happier/more active (Rodin & Langer, 1977).

Before describing my study, one more point must be raised. It concerns the interaction of the perception of competence and the perception of control. In Langer and Rodin's study, for example, their control manipulation stressed not only responsibility but also the ability of the resident to deal with the responsibility. It was implied that the residents had made decisions before and were able to make them now.

Even within the laboratory research on perceptions of control-perception of competence in dealing with the uncontrollable/controllable aversive events are often inadvertently manipulated. The perceived competence research also confounds manipulations of control and competence; that is, often perceptions of competence are enhanced by having subjects control outcomes. One thing that the present study attempted to do is to separate these perceptions.

As mentioned earlier it seems evident that perceptions of competence and perceptions of control will determine how well a person copes in stressful situations. The difficulty arises in developing experimental manipulations that increase perceptions of competence and control independently--and to be able to measure these increases at the time of manipulation. These then become the key steps in moving from the lab to the field.

While the primary reason this study was carried out was to look at the importance of a perceived control and perceived competence in stressful situations, there were two other questions we wanted to answer. First was whether a program could be developed that would prevent some of the problems college students report in getting along with other people--their roommates, their boyfriends or girlfriends, their parents, their professors. Second, since we used some of the fundamentals of assertiveness training in our experimental programs, we could answer questions about the viability of teaching these skills to a random sample of college students.

Because we wanted to get to the first year students before major problems occurred we began our study the first day of orientation. First-year students at a moderate sized, private, urban university were asked the first day of orientation if they would like to participate in a new program designed to increase their communication skills. Students ($n=71$) who expressed an interest and later agreed to help evaluate the program were randomly assigned to one of four experimental groups. Three of these groups met for one four-hour evening session. The fourth group ($n=11$) served as a no-treatment baseline comparison group. One of the three other groups ($n=9$) was also a baseline comparison group in that the program in which they participated was designed only to control for the amount of attention the treatment groups received. The two remaining groups were further divided into four smaller groups at the evening sessions. Perceptions of control over one's life at college and one's competence at dealing with interpersonal situations were varied orthogonally, resulting in the four treatment groups.

The responsibility message presented to half of the treatment subjects was modeled after the Langer and Rodin (1976) manipulation except that references to ability to make decisions were eliminated. That is, subjects

were told it was their responsibility to deal with problems and if they needed help they would have to ask for it. The message given to the comparison groups emphasized the opportunities available at CMU, how comfortable they should feel at CMU, and how people were always willing to help them with their problems.

Independent of the responsibility manipulation perceived competence at handling interpersonal problems was varied. Half of the treatment subjects participated in a program designed to teach interpersonal skills and to make subjects feel they personally were able to deal with problems. The other half of the subjects were taught the same skills but no effort was made to have subjects feel they personally could use the skills. Included in both of the programs were structured exercises which focused on self-confidence development, conflict resolution, and relaxation training.

In designing the programs for the two different competence groups, two major constraints were applied. First, subjects in both groups were to be exposed to the same information and learn the same skills differing only in their perceived competence in using the skills. Second, both groups had to role-play problem situations because role-playing experience has already been shown to be a determinant of future use of assertiveness skills (Friedman, 1971). The goal of this experiment was not to redemonstrate this finding.

Two experimenters conducted the evening sessions on two consecutive weeks. In order to eliminate problems caused by having the same experimenter carry out the competence enhancing manipulation for both the responsibility relevant and responsibility irrelevant groups, the experimenters carried out different manipulations each session. Because the programs were developed in close cooperation and specific outlines developed for the

sequence of exercises, the programs delivered by the different experimenters can be considered equivalent.

Manipulation checks were carried out immediately after the programs and with a questionnaire sent to subjects at midterm. During finals four subjects from each condition were interviewed and judgments were made of their social and academic adjustment. Grade point information was obtained from the registrar at both midterm and finals.

RESULTS

The impact of the manipulations of perceived competence and control was measured with subjects' self-assessments of adjustments and competence made at the evening session, and again four to six weeks later.

Immediate evaluations. There were no significant differences due to either the competence or the control manipulation in whether subjects thought the skills taught were useful. However, in subjects' judgments of whether they personally would use the skills, there were significant effects for both perception of competence ($F(1,29) = 5.03, p < .05$) and perception of control ($F(1,29) = 6.04, p < .05$). Further, subjects in the control-enhancing treatment groups felt more confident about being able to use the skills ($F(1,29) = 4.40, p < .05$). There was also a borderline effect here for the competence-enhancing groups ($F(1,29) = 3.11, p < .10$). In both of these last items the competence-enhanced/control-enhanced group said they felt the most confident ($p < .05$) and most likely ($p < .05$) to use the skills when compared to the other three groups. This group also was more willing to attend another session ($F(1,29) = 18.46, p < .01$).

The manipulation check for the control manipulation did not indicate that subjects who received the control-enhancing message felt they had more control over their collegiate lives.

In summary, the competence manipulations appear to have been successful. The groups receiving the competence-enhancing manipulation were more likely to say they would personally use the skills and felt more confident about being able to use them than groups receiving the competence-irrelevant treatment. Results of the control manipulations were less clear although it appears that the control-enhancing message increased the impact of competence-enhancing message.

Midterm evaluations. Six to eight weeks after the evening sessions, the group receiving both the competence-enhancing treatment and control-enhancing message had found the skills taught more useful than the other three treatment groups and the attention-only group ($F(1,33) = 10.04$, $p < .001$). Both control-enhanced groups found more instances where they needed the skills ($F(1,32) = 9.26$, $p < .001$). Of the subjects who had used the skills, there was a tendency for subjects in the competence-enhancing groups to rate the skills more helpful ($F(1,23) = 3.27$, $p < .10$). Further, the more subjects had used the skills taught, the more confident they felt in using the skills ($r(28) = .55$, $p < .01$).

Subjects assessed their own adjustment and competence in both social and academic spheres. No significant differences were found among the groups in any of these ratings. Subjects were asked to list major problems they had encountered so far and to list the activities other than going to class or studying that they engaged in. There were no differences among groups in the number of problems reported. However, subjects in the competence-enhanced/control-enhanced group were participating in more activities than subjects in other groups ($F(1,47) = 5.36$, $p < .01$).

Interviewer ratings. Assessments of social and academic competence and adjustment were made following interviews (11-12 weeks after the sessions) of a random sample of subjects. Although differences in the means were great (e.g., 5.75 versus 9.25 on a 10-point scale), these differences only approached significance with analysis of variance because of the small number of subjects interviewed in each group ($n=4$). Sign tests gave a better indication of the differences between the groups. When analyzed with the sign tests, there was a significant difference between the competence-enhanced group and competence-irrelevant groups in ratings of social adjustment ($p<.01$) and social competence ($p<.01$). Additionally, the competence-enhanced/control-enhanced group was rated higher than the other three treatment groups on social adjustment ($p<.01$) and social competence ($p<.01$). On the equivalent ratings in the academic sphere, there were no differences among the groups.

When the subjects' use of the skills taught was assessed, the no treatment group was less assertive with their peers than subjects in the competence-enhanced/control-enhanced group (Fisher's exact, $p<.01$). There were no differences in assertiveness with more powerful others or in assertive behavior displayed towards the interviewer. No differences among groups were found on a control-relevant assessment.

In summary, subjects' reports of their use of the skills taught and the extra-academic activities they participated in indicated that subjects who had received both the competence-enhancing and control-enhancing manipulations were more likely to use the skills and in general to be more active than subjects who did not receive both these manipulations. The interviewer's assessment of subjects' social adjustment and competence also indicate that subjects who received these manipulations were better adapted to the social aspects of college life.

Grade point averages. Although the skills taught were most applicable in solving social problems, some of the skills are also useful in dealing with academic problems, e.g., knowing how to ask an instructor for help. Consequently, we were interested in differences among the group's grade point averages. Grade point averages in midterm (3-4 weeks after the session) and finals for all subjects in our sample were obtained from the Registrar's Office and analyzed with a repeated measures analysis of variance. There were no differences among groups for grade point averages at midterm or at finals. However, there was a significant increase in grade point average for the competence-enhanced/control-enhanced group between midterm and finals ($F(1,29) = 7.38, p < .05$). No other group showed a significant increase in grade point average between midterm and finals.

Discussion

Our results indicate that students who felt that they are both able to handle problem situations and responsible for dealing with those problems dealt effectively with their problems. Our manipulation checks immediately following the evening sessions and at midterm showed that our manipulation of perceived competence was successful. Indications about the perception of control, on the other hand, are not as clear. The manipulation leads to significant behavioral effects but we were unable to successfully tap what it was that was causing the differences.

Looking back at Langer and Rodin's (1976) manipulation checks, one can also see that their check for perception of control was not successful--thus, it is impossible to be certain that perception of control was manipulated.

Before I draw any conclusions about this data let me emphasize the three arenas where this study is applicable. First, there are conclusions that

can be drawn about the importance of perception of competence and control. Second, there are real world applications--new orientation programs are suggested. Finally, a combination of these two arenas--suggestions can be made about which aspects of assertiveness training are important.

Going back to the first--this study has demonstrated nicely that it is perception of competence that is important rather than having the skills. Our competence irrelevant groups who were exposed to the same skills as our competence enhanced groups did not use them as often. Results from the control/responsibility manipulation, although it is not clear what is being manipulated, also indicate that being told you are responsible for dealing with your problems is important and necessary before you do anything about using the skills you perceive you have.

To a more clinically oriented audience this study indicates that one four-hour program can lead to differences in level of adjustment. It may be that we reached the students at a very critical time or that our programs emphasized skills that proved to be valuable. Further, you can see that how the program is handled is important. It was only our competence-enhanced/control-enhanced group that was superior to the two baseline comparison groups.

In terms of the viability assertiveness training for normal college students, this study shows that even a random sample of first year students are helped by learning skills used in interpersonal situations. Most past research has dealt with students referred from counseling centers. The importance of students' active participation in solving problems in a structured situation is also pointed out.

In general, the study has provided evidence that the perception of competence is important in determining whether skills will be used and the evaluation of the skills when they are used. The biggest unanswered question is how the control/responsibility message affects the subjects.

References

- Bachman, J. G. & O'Malley, P. M. Self-esteem in young men: A longitudinal analysis of impact of educational and occupational attainment. Journal of Personality and Social Psychology, 1977, 35, 365-380.
- Friedman, P. H. The effects of modeling and roleplaying on assertive behavior. In R. O. Rubin, H. Fensterheim, A. A. Lazurus, and C. M. Franks (Eds.), Advances in Behavior Therapy. New York: Academic Press, 1971, 149-169.
- Glass, D. G. & Singer, J. E. Urban Stress. New York: Academic Press, 1972.
- Langer, E. J. & Rodin, J. The affects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. Journal of Personality and Social Psychology, 1976, 34, 314-330.
- Rodin, J. and Langer, E. J. Long-term effects of a control-relevant intervention within the institutionalized aged. Journal of Personality and Social Psychology, 1977, 35, 897-903.
- Seligman, M. E. P. Helplessness: On depression, developments, and death. San Francisco: Freeman, 1975.

Table 1
Mean Skill Ratings by Condition
(Data Collected Immediately After Treatment Session)

	Conditions				
		Competence Irrelevant	Competence Irrelevant	Competence Enhanced	Competence Enhanced
	Attention	Control Irrelevant	Control Enhanced	Control Irrelevant	Control Enhanced
How useful are the skills?	3.67 ^a	3.38	3.3	3.0	2.25
Would you personally use skills?	3.33	4.88	3.6	3.71	2.38
How confident are you about being able to use skills?	3.89	4.75	3.40	3.57	2.75

^aThe lower the number the higher the rating.

Table 2
Mean Skill Ratings by Condition
(Data Collected at Midterm)

	Conditions				
	Attention	Competence Irrelevant Control Irrelevant	Competence Irrelevant Control Enhanced	Competence Enhanced Control Irrelevant	Competence Enhanced Control Enhanced
How useful were skills?	3.86 ^a	3.86	4.86	3.43	2.25
How much have you used skills?	2.43	2.71	1.86	2.71	1.71

^aThe lower the number, the higher the rating.

Table 3
Mean Number of Activities by Condition

Number of Activities Engaged in	No Treatment	Attention	Competence Irrelevant Control Irrelevant	Competence Irrelevant Control Enhanced	Competence Enhanced Control Irrelevant	Competence Enhanced Control Enhanced
	5.29	4.43	5.57	4.67	3.43	7.13

Table 4
Ratings of Adjustment, Social Competence
and Assertiveness by Condition

	Conditions											
	No Treatment		Attention		Competence Irrelevant		Competence Irrelevant		Competence Enhanced		Competence Enhanced	
					Control Irrelevant		Control Enhanced		Control Irrelevant		Control Enhanced	
	Number above median	Number below median	Number above median	Number below median	Number above median	Number below median	Number above median	Number below median	Number above median	Number below median	Number above median	Number below median
Social Adjustment	0	4	1	3	0	4	0	4	1	3	4	0
Social Competence	0	4	0	4	0	4	0	4	1	3	4	0
Assertiveness Toward Peers	0	4	2	2	1	3	2	2	3	1	4	0

Table 5

Grade Point Averages at Midterm and at End of Semester by Condition

	Conditions					
	No Treatment	Attention	Competence Irrelevant Control Irrelevant	Competence Irrelevant Control Enhanced	Competence Enhanced Control Irrelevant	Competence Enhanced Control Enhanced
Midterm	3.07	2.68	3.02	2.97	2.86	2.77
Final	3.19	2.79	3.19	2.96	2.87	3.08
Change	+ .12	+ .09	+ .17	- .01	+ .01	+ .31